



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,723	02/28/2005	Joern Moeller Madsen	742111-165	8300

25570 7590 06/13/2006

ROBERTS, MLOTKOWSKI & HOBBS  
P. O. BOX 10064  
MCLEAN, VA 22102-8064

EXAMINER
----------

MACKEY, JAMES P

ART UNIT	PAPER NUMBER
----------	--------------

1722

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/525,723	MADSEN, JOERN MOELLER	
	<b>Examiner</b>	<b>Art Unit</b>	
	James Mackey	1722	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-5 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/28/2005</u> . | 6) <input type="checkbox"/> Other: ____.  |

Art Unit: 1722

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1-4, drawn to an apparatus for making fibre balls, classified in class 425.

Group II, claim 5, drawn to a method for making fibre balls, classified in class 264.

2. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the method as claimed does not require the wings and cylinder projections to have cooperating teeth and also does not require at least one of the wings to be angularly displaced, as required in the claimed apparatus.

3. During a telephone conversation with David Safran on 09 June 2006 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-4.

Affirmation of this election must be made by applicant in replying to this Office action. Claim 5 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant should update the Title to reflect the elected invention, i.e. apparatus only.

5. The abstract of the disclosure is objected to because the abstract is too long. Correction is required. See MPEP § 608.01(b).

6. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

Art Unit: 1722

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

7. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the wings being "angularly displaced relative to the longitudinal axis of the wing with different angles" (claim 3; page 3, lines 20-21) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

8. Claim 1 is objected to because of the following informalities: on lines 8-9 of claim 1, "the outwards projecting wings" should be --the outwards directed wings-- in order to maintain the same claim terminology. Appropriate correction is required.

Art Unit: 1722

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 12-13, "at least one of the radially outwards directed wings is angularly displaced relative to the longitudinal axis of the wing" is unclear and indefinite as to how the wing may be angularly displaced relative to itself. Claims 2-4 are indefinite due to their dependence on indefinite claim 1 (note that the wording of claim 3 is similarly indefinite).

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 1, 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Werthaiser et al. (U.S. Patent 4,144,294; Figures 3-6) in view of Vesa et al. (U.S. Patent 6,406,287; Figure 3c; column 2, lines 56-60).

Werthaiser et al. disclose an apparatus for making fibre balls comprising a housing 22, 26 having axially extending projections 42 at angular intervals on the inner wall of the housing (see Figure 6), the projections having radially inwardly directed teeth 40; and a rotating shaft 34 centrally disposed in the housing and driven by a motor (via belt drive 36), the shaft having radially outwardly directed wings 30, 32 secured to the shaft, the front edges of the wings having radially outwardly directed teeth 38 interacting with the projections on the inner wall of the housing. Werthaiser et al. do not disclose the housing as being “cylindric”, and do not disclose that “at least one of the radially outwards directed wings is angularly displaced relative to the longitudinal axis of the wing.”

Vesa et al. disclose an apparatus for making fibre balls comprising a cylindrical housing with a centrally disposed rotating shaft 3 having radially outwardly directed wings 12 cooperating with the inner wall of the cylindrical housing, wherein the front edge of the wings are “angularly displaced” (Figure 3c; col. 2, lines 56-60). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Werthaiser et al. by providing the housing as a cylindrical housing, as disclosed in Vesa et al., in order to apply a rolling force to the fiber material over the entire circumference of the housing, thereby increasing the working of the fiber material, and in order to continuously operate the apparatus by moving the fiber material axially along the housing from an inlet to an outlet. It would have been further obvious to a skilled artisan to modify Werthaiser et al. by providing at least one of the wings with an angularly displaced front edge, as disclosed in Vesa et al., in order to increase the effectiveness of the formation of balls.

Art Unit: 1722

14. Claims 1, 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Werthaiser et al. (U.S. Patent 4,144,294; Figures 3-6) in view of Chavez et al. (U.S. Patent 5,094,604; Figures 1-2; col. 4, lines 18-34).

Werthaiser et al. disclose an apparatus for making fibre balls comprising a housing 22, 26 having axially extending projections 42 at angular intervals on the inner wall of the housing (see Figure 6), the projections having radially inwardly directed teeth 40; and a rotating shaft 34 centrally disposed in the housing and driven by a motor (via belt drive 36), the shaft having radially outwardly directed wings 30, 32 secured to the shaft, the front edges of the wings having radially outwardly directed teeth 38 interacting with the projections on the inner wall of the housing. Werthaiser et al. do not disclose the housing as being “cylindric”, and do not disclose that “at least one of the radially outwards directed wings is angularly displaced relative to the longitudinal axis of the wing.”

Chavez et al. disclose an apparatus for working fibrous material comprising a cylindrical housing (which may have a textured inner wall 14; see col. 5, lines 9-25) and a centrally disposed rotating shaft 24 having radially outwardly directed wings 28 which are angularly disposed at optionally different angles (col. 4, lines 18-34). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Werthaiser et al. by providing the housing as a cylindrical housing, as disclosed in Chavez et al., in order to apply a rolling force to the fiber material over the entire circumference of the housing, thereby increasing the working of the fiber material, and in order to continuously operate the apparatus by moving the fiber material axially along the housing from an inlet to an outlet. It would have been further obvious to a skilled artisan to modify Werthaiser et al. by providing the wings as being angularly

Art Unit: 1722

displaced at different angles, as disclosed in Chavez et al., in order to optimized the working of the fibrous material within the housing.

15. Claims 1, 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Werthaiser et al. (U.S. Patent 4,144,294; Figures 3-6) in view of either Marcus (U.S. Patent 4,794,038; Figures 5-6) or Kirkbride (U.S. Patent 5,429,783), in view of Pelikan et al. (U.S. Patent 3,645,813; Figures 1-2; col. 2, lines 45-47, and col. 6, lines 15-20 and 30-34)

Werthaiser et al. disclose an apparatus for making fibre balls comprising a housing 22, 26 having axially extending projections 42 at angular intervals on the inner wall of the housing (see Figure 6), the projections having radially inwardly directed teeth 40; and a rotating shaft 34 centrally disposed in the housing and driven by a motor (via belt drive 36), the shaft having radially outwardly directed wings 30, 32 secured to the shaft, the front edges of the wings having radially outwardly directed teeth 38 interacting with the projections on the inner wall of the housing. Werthaiser et al. do not disclose the housing as being “cylindric”, and do not disclose that “at least one of the radially outwards directed wings is angularly displaced relative to the longitudinal axis of the wing.”

Marcus ‘038 and Kirkbride each discloses an apparatus for making fibre balls comprising a cylindrical housing (which may have a corrugated inner wall as disclosed in Kirkbride at col. 5, lines 28-32) and a centrally disposed rotating shaft having radially outwardly directed wings for cooperation with the inner wall of the housing. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Werthaiser et al. by providing the housing as a cylindrical housing, as disclosed in either Marcus ‘038 or Kirkbride, in order to apply a rolling force to the fiber material over the entire circumference of the housing, thereby increasing the



Art Unit: 1722

working of the fiber material, and in order to continuously operate the apparatus by moving the fiber material axially along the housing from an inlet to an outlet.

Pelikan et al. disclose an apparatus for conglomerating fibers comprising a housing and a rotating shaft having radially outwardly directed wings for cooperation with the inner wall of the housing, the front edge of the wings (at blades 7) being angularly disposed (col. 2, lines 45-47) at a variable angle (col. 6, lines 15-20) to improve the working of the fiber material (col. 6, lines 30-34). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Werthaiser et al. by providing the wings as being angularly disposed, as disclosed in Pelikan et al., in order to optimize the working of the fibrous material within the housing.

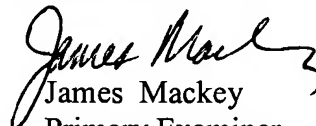
16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Mackey whose telephone number is 571-272-1135. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1722

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
James Mackey  
Primary Examiner  
Art Unit 1722

6/9/06

jpm  
June 9, 2006